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| 09/742,852                                                                                                     | 12/21/2000  | Charles A. Eldering  | T721-19             | 8089             |
| 81712 7590 03/26/2009<br>Carlinco, Spicer & Kee, LLC<br>2003 S. Easton Road, Suite 208<br>Doylestown, PA 18901 |             |                      |                     |                  |
| EXAMINER                                                                                                       |             |                      |                     |                  |
| SHELEHEDA, JAMES R                                                                                             |             |                      |                     |                  |
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* CHARLES A. ELDERING

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Appeal 2009-0696  
Application 09/742,852<sup>1</sup>  
Technology Center 2400

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Decided:<sup>2</sup> March 26, 2009

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Before JOSEPH F. RUGGIERO, MAHSHID D. SAADAT, and MARC S.  
HOFF, *Administrative Patent Judges*.

HOFF, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE

Appellant appeals under 35 U.S.C. § 134 from a Non-final Rejection  
of claims 4-6, 55, 56, 59, 60, 75, 78, 79, 90, and 91.<sup>3</sup>

We affirm.

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<sup>1</sup> The real party in interest is Prime Research Alliance E., Inc.

<sup>2</sup> The two-month time period for filing an appeal or commencing a civil  
action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date  
shown on this page of the decision. The time period does not run from the  
Mail Date (paper delivery) or Notification Date (electronic delivery).

<sup>3</sup> Claims 1-3, 7-54, 57, 58, 61-74, 76, 77, and 80-89 have been cancelled.

Appellant's invention relates to the insertion of targeted advertising into media program channels at the subscriber's side (Spec. 3). An ad processing unit determines the next ad or ads to be inserted into available time slots in a programming channel (Spec. 4). The ad processing unit may also readily change the ad insertion schedule in view of a change in channel selection, viewer identity, and/or the type of program being watched (Spec. 5).

Claim 4 is exemplary:

4. A subscriber system for inserting unscheduled advertisements into at least one channel of media signals, the system comprising:

an ad insertion device configured to determine an order in which the unscheduled advertisements are to be inserted into the at least one channel and insert the unscheduled advertisements into the at least one channel according to the order; and

a watchdog module coupled to the ad insertion device, the watchdog module configured to detect a change in current program content being displayed on the at least one channel and output results of the detection to the ad insertion device, such that the ad insertion device modifies the order in which the unscheduled advertisements are to be inserted according to program content displayed as a result of the detected change.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

|         |                    |               |
|---------|--------------------|---------------|
| Doherty | US 2003/0200128 A1 | Oct. 23, 2003 |
| Zigmond | US 6,698,020 B1    | Feb. 24, 2004 |

Claims 4-6, 55, 56, 59, 60, 75, 78, 79, 90, and 91 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Zigmond in view of Doherty.

Rather than repeat the arguments of Appellant or the Examiner, we make reference to the Appeal Brief (filed January 19, 2007, supplemented

April 25, 2007), the Reply Brief (filed September 28, 2007), and the Examiner's Answer (mailed July 31, 2007) for their respective details.

### ISSUES

There are two principal issues in the appeal before us:

1. Has Appellant shown that the Examiner erred in finding that the combination of Zigmond and Doherty teaches modifying the order in which unscheduled advertisements are to be inserted according to program content displayed, as a result of detected change in program content being displayed, as claims 4 and 90 require?
2. Has Appellant shown that the Examiner's proposed rejection lacked motivation to combine Zigmond and Doherty to obtain the claimed invention, because the Examiner failed to point to an objective teaching demonstrating the desirability of the asserted combination?

### FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

#### *The Invention*

1. According to Appellant, the invention concerns the insertion of targeted advertising into media program channels at the subscriber's side (Spec. 3).
2. An ad processing unit determines the next ad or ads to be inserted into available time slots in a programming channel (Spec. 4).
3. The ad processing unit may also readily change the ad insertion schedule in view of a change in channel selection, viewer identity, and/or the type of program being watched (Spec. 5).

*Zigmond*

4. Zigmond teaches a system and method for selecting and inserting advertisements into a video programming feed at the household level (col. 6, ll. 4-6).

5. Zigmond's ad insertion device may comprise means for identifying the content of television programs carried on the video programming feed (col. 10, ll. 65-67). The program descriptions in the electronic program database may be used to select an advertisement according to the subject matter of a particular program (col. 12, ll. 60-62).

*Doherty*

6. Doherty teaches a method and apparatus for displaying items of information, such as targeted advertisements, on a display apparatus (para. [0001]).

7. Doherty teaches a scheduler 140 that records a log of advertisements and other items of information to be scheduled and displayed by the output devices 100 (para. [0029]).

8. Once a user commences interacting with the user interface 150 of Doherty, a user interrupt is generated and supplied to scheduler 140, in response to which the schedule is cleared and rescheduling is undertaken (para. [0030]).

PRINCIPLES OF LAW

"Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727,

1734 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). See also *KSR*, 127 S. Ct. at 1734 (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”)

In *KSR*, the Supreme Court emphasized “the need for caution in granting a patent based on the combination of elements found in the prior art,” *id.* at 1739, and discussed circumstances in which a patent might be determined to be obvious. In particular, the Supreme Court emphasized that “the principles laid down in *Graham* reaffirmed the ‘functional approach’ of *Hotchkiss*, 11 How. 248.” *KSR*, 127 S. Ct. at 1739 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 12 (1966) (emphasis added)), and reaffirmed principles based on its precedent that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* The Court explained:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

*Id.* at 1740. The operative question in this “functional approach” is thus “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *Id.*

As was described in *In re Kahn*, 441 F.3d 977 (Fed. Cir. 2006):

[T]he “motivation-suggestion-teaching” test asks not merely what the references disclose, but whether a person of ordinary skill in the art, possessed with the understandings and knowledge reflected in the prior art, and motivated by the general problem facing the inventor, would have been led to make the combination recited in the claims. From this it may be determined whether the overall disclosures, teachings, and suggestions of the prior art, and the level of skill in the art – i.e., the understandings and knowledge of persons having ordinary skill in the art at the time of the invention-support the legal conclusion of obviousness. (internal citations omitted).

*Id.* at 988. To establish a prima facie case of obviousness, the references being combined do not need to explicitly suggest combining their teachings. *See id.* at 987-88 (“the teaching, motivation, or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references”). “The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art.” *Id.* at 987-88 (quoting *In re Kotzab*, 217 F.3d 1365, 1370 (Fed. Cir. 2000)).

One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). The test of obviousness is not whether the

features of a secondary reference may be bodily incorporated into the structure of the primary reference, nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. *Id.* at 425.

### ANALYSIS

Appellant presents a single set of arguments with respect to all pending claims. We select claim 4 as representative of the claims, pursuant to our authority under 37 C.F.R. § 41.37(c)(1)(vii).

Appellant argues that the combination of Zigmond and Doherty asserted by the Examiner does not teach “modify[ing] the order in which unscheduled advertisements are to be inserted according to program content displayed as a result of the detected change,” as claim 4 requires, because Zigmond does not contemplate the use of a schedule (Br. 11), and because Doherty does not teach altering the schedule or order of ads “according to program content displayed as a result of the detected change” (Br. 10).

Appellant’s arguments are not persuasive of Examiner error. The Examiner’s rejection relies on Doherty, rather than Zigmond, to teach the concept of a schedule of advertisements (Ans. 12; see FF 7). The Examiner’s rejection further relies on Zigmond, rather than Doherty, to teach the concept of modifying the order in which advertisements are to be inserted, in the event of a change in displayed program content (Ans. 12; see FF 5). In any case, Appellant’s attacks on the individual references are not persuasive to show the nonobviousness of the asserted combination. *Keller*, 642 F.2d at 425.



Appellant further argues that even if Doherty's queue were incorporated into Zigmond's system, it cannot be inferred from such a combination that the included queue would be reordered at all, let alone according to program content (Br. 11). This argument is similarly unpersuasive, because it is based on the assumption that Doherty's queue must be bodily incorporated into Zigmond's adaptive advertisement selection system. The test of obviousness, however, is what the combined teachings of the references would have suggested to one of skill in the art. *Keller*, 642 F.2d at 425. We concur in the Examiner's conclusion that the combined teachings of Zigmond and Doherty would have suggested a system for inserting targeted advertisements including an ad insertion device that determines an order in which unscheduled advertisements are to be inserted, and that modifies the order of unscheduled advertisement insertion in response to a change in displayed program content, to achieve the advantages of eliminating any possible delay in inserting the ad, and achieving greater compression of the video data (Ans. 5, 11).

Appellant further argues that the Examiner has failed to establish motivation to combine Zigmond and Doherty, because the Examiner has failed to point to an objective teaching that suggests the desirability of combining the references (Br. 8).

Such an objective teaching is not a *per se* requirement, however. The Federal Circuit recently framed the obviousness inquiry as "whether a person of ordinary skill in the art, possessed with the understandings and knowledge reflected in the prior art, and motivated by the general problem facing the inventor, would have been led to make the combination recited in the claims." *Kahn*, 441 F.3d at 988. We concur in the Examiner's conclusion

that, presented with the adaptive advertisement selection based on program content taught by Zigmond, and the advertisement schedule taught by Doherty, the person having ordinary skill in the art would have found it obvious to combine the two teachings to achieve the advantages of eliminating any possible delay in displaying an advertisement and allowing greater compression of video data (Ans. 11). Further, we regard the Examiner's proposed modification of Zigmond to include the determination of an order in which advertisements are to be inserted, as taught by Doherty, as the predictable use of prior art elements according to their established functions. *See KSR*, 127 S. Ct. at 1734.

Appellant thus has not demonstrated error in the Examiner's rejection of claim 4. We therefore affirm the rejection of claims 4-6, 55, 56, 59, 60, 75, 78, 79, 90, and 91 under 35 U.S.C. § 103.

#### CONCLUSIONS OF LAW

1. Appellant has not shown that the Examiner erred in finding that the combination of Zigmond and Doherty teaches modifying the order in which unscheduled advertisements are to be inserted according to program content displayed, as a result of detected change in program content being displayed, as claims 4 and 90 require.

2. Appellant has not shown that the Examiner's proposed rejection lacked motivation to combine Zigmond and Doherty to obtain the claimed invention.

#### ORDER

The Examiner's rejection of claims 4-6, 55, 56, 59, 60, 75, 78, 79, 90, and 91 is affirmed.

Appeal 2009-0696  
Application 09/742,852

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

tdl

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